

Notice of Allowability

Applicati n N .

10/036,727

Examiner

Delma R. Flores Ruiz

Applicant(s)

ERSHOV ET AL.

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/017/2004.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☒ The drawings filed on 08 April 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

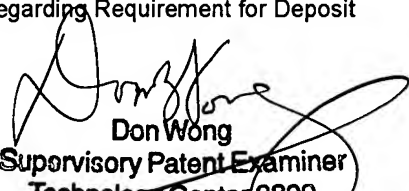
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/26/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


Don Wong
Supervisory Patent Examiner
Technology Center 2800

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1 – 26, drawn to A very narrow band two chamber high repetition rate gas discharge laser system with special timing control features, classified in class 372, subclass 55.
- II. Claim 27, drawn to A process for controlling discharge timing of burst of pulse produces by a MOPA laser system, classified in class 372, subclass 55.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process of making is considered a different scope of the invention of the product made since the product made can be manufacture in different manners and the scope is directed

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to the structural relationship between the components of the apparatus and their functions. However, the process of making is the direct process of how each piece is manufacture and joint together to form the structure itself. For the reasons s stated above, different considerations needs to be taken into account for each case and in conclusion, both inventions requires separated examinations.

During a telephone conversation with William C. Cray on 06/01/2004 a provisional election was made without traverse to prosecute the invention of A very narrow band two chamber high repetition rate gas discharge laser system with special timing control features, claims 1 – 26. Affirmation of this election must be made by applicant in replying to this Office action. Claim 27, withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

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Authorization for this examiner's amendment was given in a telephone interview with William C. Cray on 06/1/2004.

Cancel claim 27.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: claim 1 has been allowed over the prior art because they fail to teach a very narrow band two chamber high repetition rate gas discharge laser system comprising; a first laser unit comprising; a first discharge chamber containing; a first laser gas; a first pair of elongated spaced apart electrodes defining a first discharge region, a first for producing sufficient gas velocities of said first laser gas in said first discharge region to clear from said first discharge region, following each pulse, substantially all discharge produced ions prior to a next pulse when operating at a repetition rate in the range of 4,000 pulses per second or greater, a first heat exchanger system capable of removing at least 16 kw of heat energy from said first laser gas, a line narrowing unit for narrowing spectral bandwidths of light pulses produces in said first discharge chamber, a second laser unit comprising; a second discharge chamber containing; a second laser gas, a second pair of elongated

space apart electrodes defining a second discharge region, a second fan for producing sufficient gas velocities of said second laser gas in said second discharge region to clear from said second discharge region, following each pulse, substantially all discharge produced ions prior to a next pulse when operating at a repetition rate in the rates of 4,000 pulses per second or greater, a second heat exchanger system capable of removing at least 16 kw of heat energy from said second laser gas, a pulse power system configured to provide electrical pulses to said first pair of electrodes and to said second pair of electrodes sufficient to produce laser pulses at rates of about 4,000 pulses per second with precisely controlled pulse energies in the range of about 7 mJ or greater, and a laser beam measurement and control measurement and control system for measuring pulse energy, wavelength and bandwidth of laser output pulses produced by said two chamber laser system and controlling said laser output pulses in a feedback control arrangement and a processor programmed with an algorithm providing feedback timing control.

Claims 2 - 26 has been found allowable due to their dependency on claim

1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) -272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



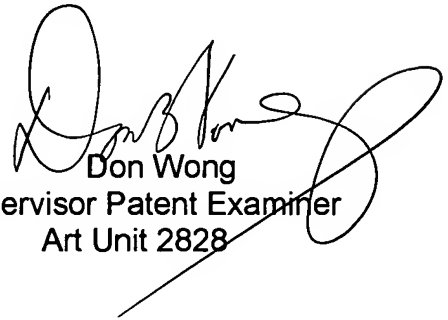
Delma R. Flores Ruiz

Examiner

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DRFR/DW

June 1, 2004



Don Wong

Supervisor Patent Examiner

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